MAINTENANCE OF SHIPS OF THE ACTIVE FLEET

by

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Prepared for

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PREFACE

This paper has been written under the direction of Dr. A. Rex Johnson, The George Washington University, to fulfill requirements in the Navy Graduate Comptrollership Program.

In this discussion of maintenance programs for the U. S. Fleet I have made certain observations and conclusions which are my very own. The views I have expressed are not necessarily those of authors I have read or of persons with whom I have discussed matters contained herein.

I wish to acknowledge the valuable assistance afforded me through the media of discussion and opening of their files to me by the following individuals.

Name	Activity
Captain J. J. Fee	Bureau of Ships
Captain P. F. Straub	Bureau of Ships
Mr. R. C. MacClinchie	Sec Def
Mr. R. M. Paterson	Bureau of Ships
Captain W. K. Stow, Jr.	OpNav
Captain H. C. White	OpNav
Cdr. R. R. Brafford	OpNav
Cdr. S. J. Riordon	Nav Compt
Mr. A. R. Berger	Bu Ships
Mr. J. G. Keen	Bu Ships
LCDR C. A. B. Davis	Cinc Lant Flt
Cdr. R. Brown	Cinc Lant Flt

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INTRODUCTION

Since the infant days of this republic men have argued the need for and reasons against a strong central government. Arguments notwithstanding, the Federal Government becomes stronger in its control and more centralized in its nature.

As the Federal Government has grown in size and strength the tendency has also been toward more centralization of the defense structure. The National Security Act of 1947 created the Department of Defense and brought unified financial management to the military services.[1] The Department of Defense Reorganization Act of 1958 strengthened the direction, control and authority of the Secretary of Defense over the three military departments.[2]

The National Security Act Amendments of 1949 and particularly Title IV of this act was aimed at providing increasing central control by the Office of the Secretary of Defense of the finances of the three military services.[3] Since Title IV it is apparent that an extensive program is underway within the OSD directed toward inaugurating more complex and extensive accounting procedures for the Navy, Army and Air Force.

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[1] 80th Congress, 1st Session Public Law 256, August 10, 1949.

[2] 85th Congress, 2nd Session, Public Law 599, August 6, 1958.

[3] 81st Congress, 1st Session Public Law 216, August 10, 1949.

One such program is directed at area of financial management of appropriations for operations and maintenance.[4] This program is endorsed by the Secretary of the Navy and is in the process of implementation by the Navy.[5]

The stress on approved financial government is a worthy and necessary program and is definitely the will of the Congress and the desire of the People. However, it appears that under this guise of improved management there is a definite current directing more and more control of all decision making at the OSD level with little flexibility left to the Services.

As the trend in big business has been toward decentralization of management, the military has steadily moved toward complete centralization. Fewer decisions are left to the top management of the Services or to the operational and activity commanders.

Another design of this paper is to show that in the past the Navy may not have been truly aware of the extent or the seriousness of its own maintenance problems within the Fleet. Operations have been overriding, and because of the excellent construction, the ships have been able to run without adequate maintenance.

On the other hand, possibly the Navy may have been too cost-conscious and therefore unwilling to request and spend the large annual amounts of money necessary to maintain an

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[4]Department of Defense, DOD Directive No. 7040.1, May 29, 1959.

[5]Department of the Navy, Sec. Nav. Instruction 7110.7, August 12, 1959.

adequate maintenance posture within the Fleet.

In this paper I hope to show the process by which ship maintenance and repair funds are obtained, how they are used and accounted for, and what value is received by the Congress and the People.

CHAPTER I

DEVELOPMENT OF THE FLEET OPERATION AND MAINTENANCE BUDGET

Mission and Functions

Congress, in the National Security Act of 1947 as amended, provided the basic policies, procedures and functions of the Department of Defense, including the Army, Navy and the Air Force, under the direction, authority and control of the Secretary of Defense.[6]

The functions of the military departments and military services are quoted in part as:

> Prepare forces and establish reserves of equipment and supplies for the effective prosecution of war, and the plan for the expansion of peacetime components, to meet the needs of war.
>
> Organize, train and equip forces for the assignment to unified or specified commands.
>
> Prepare and submit to the Secretary of Defense budgets for their respective departments; justify before the Congress budget requests as approved by the Secretary of Defense; and administer the funds made available for maintaining, equipping, and training the forces of their respective departments, including those assigned to unified and specified commands.[7]

The Department of Defense Reorganization Act of 1958[8]

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[6] 80th Congress, 1st Session, Public Law 253, July 26, 1947.

[7] Department of Defense, Department of Defense Directive No. 5100.1 December 31, 1958.

[8] 85th Congress, 2nd Session, Public Law 599, August 6, 1958.

amended the National Security Act of 1947 in strengthening the direction, authority and control of the Secretary of Defense. In addition the unified or specified combatant commands were strengthened and given the authority for performance of military missions.

This Act thus placed the individual military departments in a different defense roll. Where the Navy had previously been a separate and distinct combatant force, it was now a logistic support force supplying trained and ready forces to the unified commanders. Where the Navy had formerly been a complete and integrated fighting force, independent of the other three services, it now found its forces possibly operated by commanders from another service, but responsible for the supply and support of all required naval forces employed by that commander.

Employment of naval forces seems to fall into three main classifications of use. First are those ready forces combining "showing the flag" and maintaining a first line of defense. These are the Sixth and Seventh Fleets in the Mediterranean and Western Pacific areas. Next are the anti-submarine defense forces and striking forces as exemplified by Task Force Able, and Second Fleet respectively. Third is that group of forces in various states of repair, overhaul or training in preparation for replacement of those forces now in operation with the Fleets.

On top of all of these operational requirements and international commitments are placed those overriding needs to wage limited wars such as those actions at Lebanon or Formosa.

With this tempo of operations it is not difficult to see why the readiness of the Fleet has diminished rapidly with the passage of time.

Though the Navy has been aware of this condition for sometime little recognition of the problem has been given by the Department of Defense in the preparation of annual budget submissions.

However, in the Fall of 1958 the Navy succeeded in interesting Secretary of Defense McElroy in the fleet maintenance problem. As a result of this interest the Secretary of the Navy called together a civilian study group of three men headed by Mr. Blewitt, President of Newport News Shipbuilding and Drydock Company. The final report partially released to the newspapers revealed that:

> . . . The United States Fleet is not in an acceptable state of readiness a board of civilian ship experts has warned the Navy.
>
> . . . Blame for the bad material condition of most of the Navy warships was put on age, the tempo of operation of ships and the funds available for maintenance, modernization and new construction. . .[9]

The report declared that the Nation must make a choice: either provide a substantial increase in maintenance, modernization, and new construction funds, or decide it cannot afford the size Navy now maintained and reduce the Fleet to a size where the funds allowed are adequate.

This report serves to point up two considerations for national defense by naval forces in bright detail:

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[9]"Civilian Study of Navy Finds Fleet Not Ready," The Washington Post and Times Herald, March 31, 1959, p. A1-2.

1. No naval forces can be considered ready which are not in top material condition with the most modern weapons available.

2. Under a level funding budget concept a fleet cannot be maintained modern without adequate replacement with new construction ships or a decrease in size and strength of the forces.

Operation and Maintenance Budget Formulation

Funds for the operation and maintenance of the active fleet are contained in the Operations and Maintenance, Navy budget as a part of the overall Navy budget. The Chief of Naval Operations is responsible to the Secretary of the Navy for formulating and developing program objectives for the Navy. Program objectives are classified under three general headings:

1. Annual Program Objectives
2. Projected Program Objectives
3. Long Range Objectives

Annual Program Objectives provide the broad base for annual budget estimates for the Naval Establishment.

Projected Program Objectives are considered to be a part of mobilization objectives and relate to the five-year period immediately following the Budget Year.

The Long Range Objectives define the Department of the Navy objectives for the period seven to fifteen years subsequent to the budget year in support of the Long Range War Plan.

Annual Program Objectives have been defined by the Chief of Naval Operations as

> . . . expressions of reasonable attainable goals which are planned for accomplishment during a particular fiscal year. They serve as a basis for the development of detailed requirements upon which budgetary estimates are prepared. . . .[10]

The number of ships to be operated and maintained for the year within broad guidelines are contained in these Annual Program Objectives.

The Comptroller of the Navy prepares a letter of instructions for the preparation and submission of the budget based on guidance received from Bureau of the Budget and Office of the Secretary of Defense.

Upon receipt of the program objectives and guidance letter from the Comptroller, the bureaus commence preparation of detailed estimates by appropriations.

For the annual submissions of the budget for funds for support of the ships of the active fleet the Chief, Bureau of Ships interprets the Annual Program Objectives. A letter of request is then prepared by the Fleet Maintenance and Improvement Section and sent to the Commander in Chief, U. S. Atlantic Fleet and the Commander Service Force Pacific Fleet. These two commanders serve as the principal logistic agents for the Atlantic and Pacific Fleets in the support of maintenance and operation funds.

The stated purpose of the annual letter of CINCLANFLT and COMSERVPAC is to "request the addressees to submit back-up data for use in preparing the Fiscal Year 1961 Apportionment

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[10] Department of the Navy, Office of the Chief of Naval Operations Instruction 5010.10, June 5, 1956.

Request and in formulating the Fiscal Year 1962 Budget for active fleet overhauls, restricted availabilities, and supplies and equipage funds."[11]

Each year the Chief Bureau of Ships endeavors to budget for adequate maintenance and operation funds for the active fleets to insure that our vessels are maintained in the best possible condition of material readiness. In this connection, efforts are continually made to obtain additional funds to cover factors such as the increasing age of ships and the increasing complexity of equipment; however it should be recognized that action by higher budget review authority is based upon cost return experience as an indication of future requirements. Therefore, any request for increased funds over past experience must be accompanied by complete justification and substantiating data.[12]

The Bureau of Ships compiles the budget based on the actual fleet estimates as received and submits these requirements together with other total O&M budget needs to the Program Sponsor in the Office of the Chief of Naval Operations. The Program Sponsor for ship maintenance is OP-04, presently Vice Admiral Wilson. Upon approval by the Program Sponsor the O&M budget is then submitted to the NavCompt for review.

The Comptroller in preparing the "mark up" of the budget disregards the fleet estimates and budgets for fleet support

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[11] Letter from Chief Bureau of Ships, Serial 408 D-35, January 22, 1960.

[12] Ibid.

using returned costs from past years. Faced with a level overall Navy budget requirement to meet, the Comptroller tries to establish a balance of O&M needs within the program with the many other needs of procurement, research and development and personnel.

The marked up budget is then returned to the Bureaus and the Chief of Naval Operations for reconsideration. It is at this level the CNO Advisory Board, known as the CAB attempts to resolve the budget problems between all programs to meet those levels proposed by the Comptroller in acting for the Secretary of the Navy.

Upon completion of this review, or "reclama" as it is called, the complete O and M budget, now integrated with the complete Navy budget, is submitted for the approval of the Secretary of the Navy and subsequent higher review.

Realignment of Appropriation Structure

The Operations and Maintenance, Navy budget prior to 1960 was made up of 10 Navy and Marine Corps appropriations. These 10 previous operation and maintenance appropriations were:

Navy personnel general expenses
Marine Corps troops and facilities
Aircraft and facilities
Ships and facilities
Ordnance and facilities
Medical care
Civil engineering
Service wide supply
Service wide operations
Naval petroleum reserves

These old appropriations are now shown as Budget Activities within the appropriation Operation and Maintenance, Navy, with the

exception that operation and maintenance costs to support test and evaluation have been transferred to the appropriation, "Research and Development, Test and Evaluation, Navy."

The Fiscal Year 1961 budget submission has been further refined by removing all procurement previously included in the operation and maintenance appropriation, and placing it in the appropriate procurement appropriation.

Operation and Maintenance, Navy is now one appropriation and consists of the following major activities:[13]

Major Activity	Title
1.	General Expenses, Navy personnel
2.	Aircraft and Facilities
3.	Ships and Facilities
4.	Ordnance Facilities
5.	Medical Care
6.	Civil Engineering
7.	Servicewide Supply
8.	Servicewide Operations
9.	Naval Petroleum Reserves

Programs under the management control of the Bureau of Ships are funded primarily by the Major Activity Ships and Facilities of the Annual Appropriation, Operation and Maintenance, Navy. Therefore our interest is entirely with major activity 3 which provides the major support for the ships of the active fleet.

Present and Future Budget Considerations

The Secretary of Defense, in the Fiscal 1961 budget preparation, made available $1 billion additional to the basic

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[13] Department of the Navy, Naval Comptroller Instruction 7110.21, November 22, 1957.

budget.[14] This was additional new obligational and expenditure authority to be parceled out between the Services on the basis of their proof of greatest need. The additional was to cover only items for which the basic budget did not provide.

To the credit of the Navy it should be noted that the entire amount was requested in justification rather than an equal one-third. As a result it appears that the Navy for 1961 will receive a substantial increase of approximately $1 billion over the level budget of 1960.

The budget submission for 1962 will be submitted in four parts:

Part I	All known Requirements
Part II	110% of 1961 expected dollar amount
Part III	100% of 1961 expected dollar amount
Part IV	95% of 1961 expected dollar amount

In an election year this system is being proposed as a solution to possible late requests for information by the new Congress and new administration in the White House. By providing four levels of budget performance to higher reviewing authority it is hoped that this will provide top management with the information on what the national defense of the country will or will not receive at the four most probable budget levels.

In the case of ship maintenance, this budget will provide concrete examples of deficiencies in the fleet which will be rectified or which will continue to exist in the chosen balance between current and future needs.

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[14] U. S. Congress, House, Subcommittee of the Committee on Appropriations, Hearings, Department of Defense Appropriations for 1961, 86th Congress, 2nd Session, 1960, Part 2, p. 4.

CHAPTER II

FINANCIAL MANAGEMENT OF MAINTENANCE FUNDS

ORGANIZATION

Figures II-1 and II-2 show diagrammatically the current organization of the Department of the Navy and the Office of the Chief of Naval Operations. These charts reflect the changes which resulted from the Defense Reorganization Act of 1958.

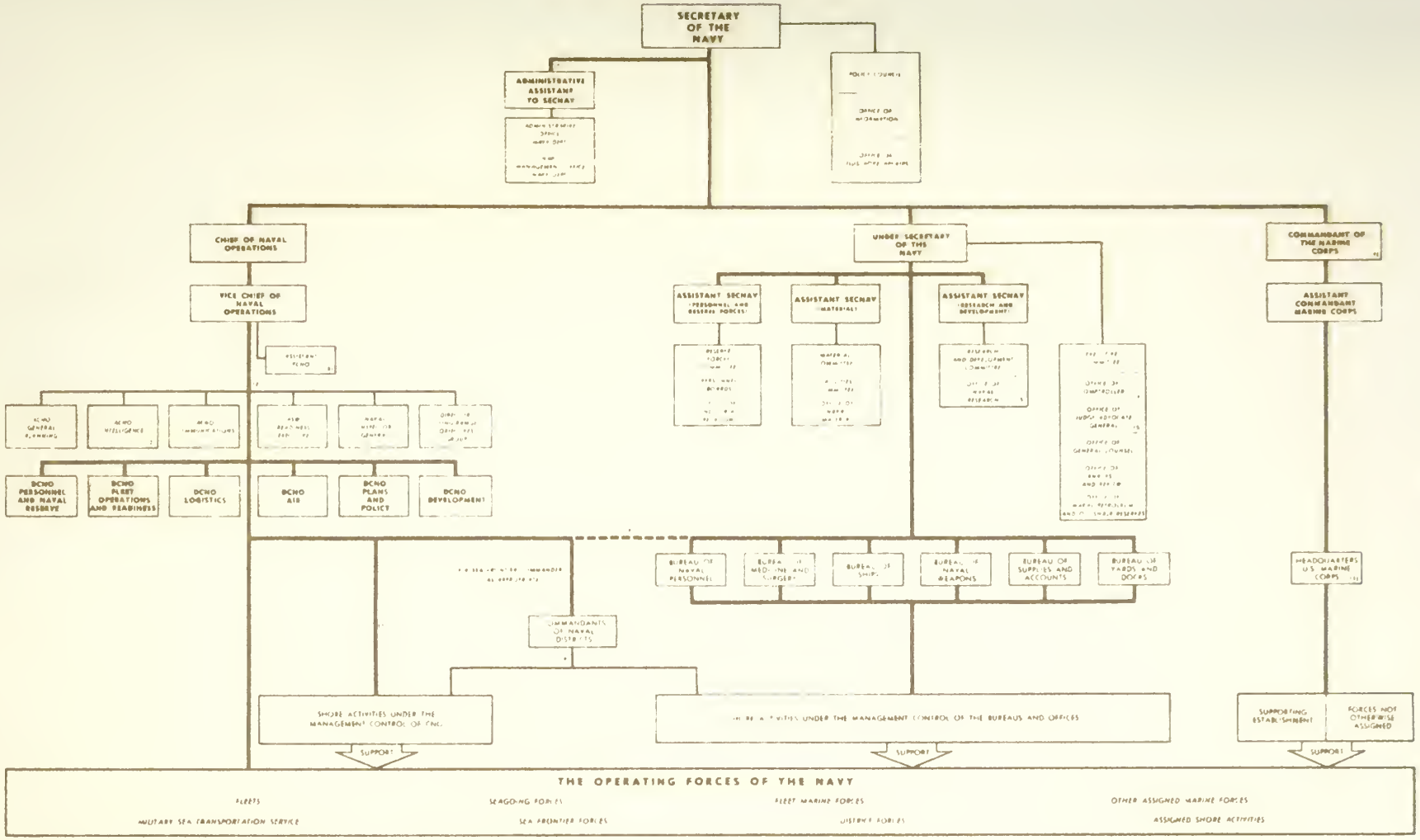
The organization of the Department of the Navy is described as bilinear. It is a "horizontal" form of organization as compared with the other military departments which are "vertical" in form. Below the Secretary of the Navy, control of the Navy is divided horizontally among the Chief of Naval Operations, the Under Secretary of the Navy and the Commandant of the Marine Corps.

The bilinear organization thus embraces two lines of control which emanate from the Secretary of the Navy. These are described as:

1. Military Command.
2. Business Administration.

The <u>Military Command</u> line is primarily concerned with training and developing the capabilities and readiness of military forces; with planning and determining their supporting requirements; and with the military administration of the Department of the Navy. The Chief of Naval Operations and the

DEPARTMENT OF THE NAVY



This Chart portrays the basic organization of the Department of the Navy. Relationships in the administration of the Department are based on Department of the Navy General Orders Nos. 5 and No. 18. The following footnotes indicate the more significant of these relationships.

Additional responsibility to the Chief of Naval Operations.

1. Additional direct responsibility to the Secretary of the Navy.
   1. All matters related to duties assigned to the Civilian Executive Assistants, the Office of the Chief of Naval Operations, Headquarters U.S. Marine Corps, and the Chiefs of Bureaus and Offices functions under the direction and supervision of the Civilian Executive Assistants, and those matters are responsible to the Under Secretary.

* Additional direct responsibility to the Chief of Naval Operations for the readiness and performance of those elements of the operating forces of the Marine Corps assigned to the Operating Forces of the Navy and responsible to the Chief of Naval Operations in the capacity as naval executive for matters assigned by the Secretary of the Navy.
1. The Chief of Naval Operations plans, forecasts and determines the requirements of the Operating Forces of the Navy for equipment, material, personnel, and supporting services and coordinates and directs the efforts of the bureaus and offices headed by Naval Technical Assistants, as may be necessary, to effectuate the adequate and distribution of these requirements.
2. For purposes of military command.
3. For purposes of management control.
4. Naval officers of District Commandants in the Office of the Chief of Naval Operations and perform administrative duties for the Chief of Naval Operations.

W. B. Franke
Secretary of the Navy

Figure II-1

ORGANIZATION OF OPNAV

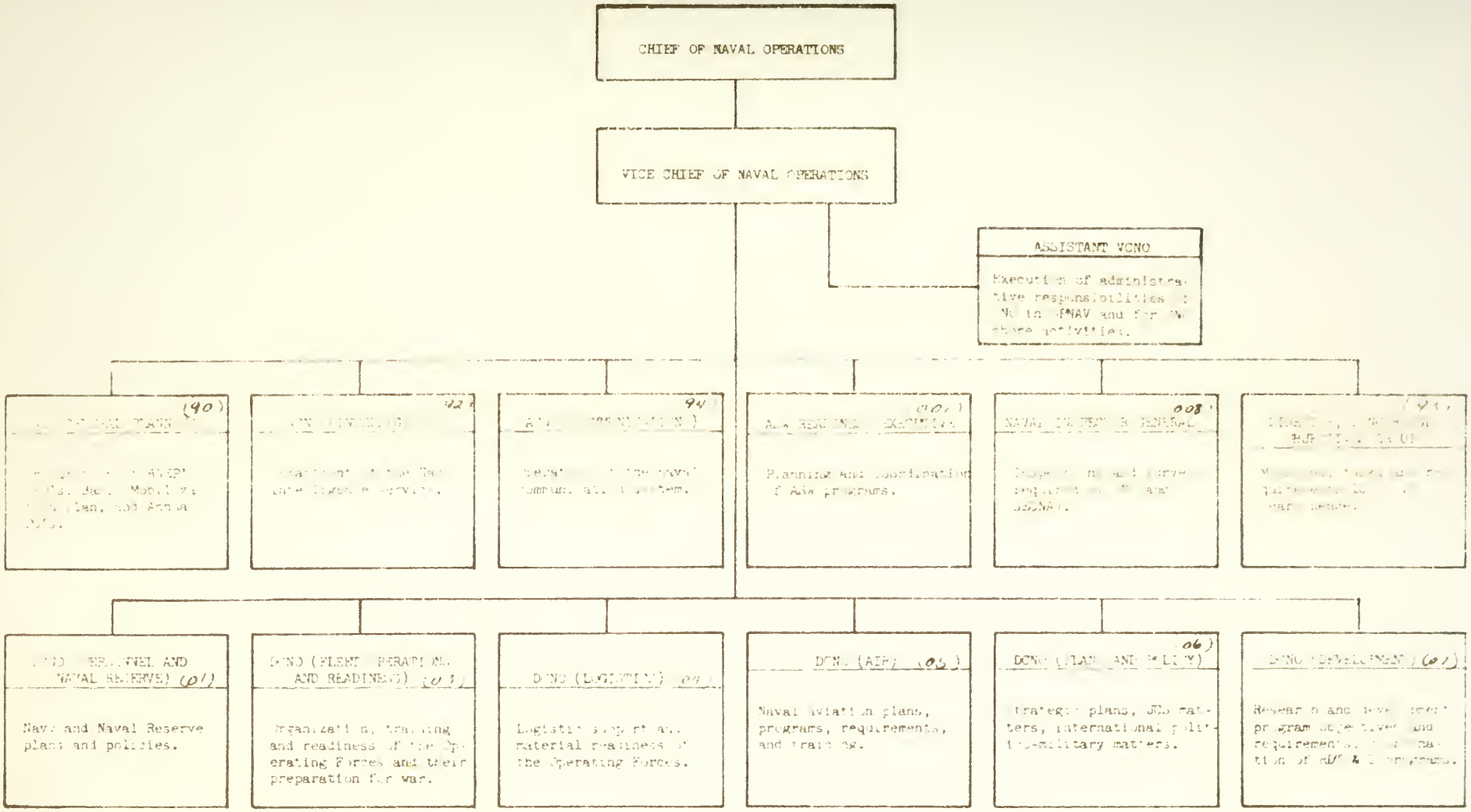


Figure II-2

Commandant of the Marine Corps have responsibility to the Secretary for all matters relating to military command. It is in this section of the organization which are included the Operating Forces of the Navy.

The business administration line is concerned with providing the equipment, material, trained personnel and services necessary to meet the supporting requirements of the Operating Forces. The Chiefs of the Bureaus under the direction of the Under Secretary and Assistant Secretaries have responsibility for these matters of business administration.

The bilinear organization integrates both the industrial and military elements upon which sea power depends. This concept has been further described as the "consumer" and "producer" concept. The Operating Forces of the Navy and the Marine Corps are the consumers and the bureaus and supporting shore activities are the producers of supporting requirements.

By reference to Figure II-1 again it may be seen that there is an overlap in the administration of shore activities of the Department. Since 1946 this control has been envisioned as four kinds of control:

Military Command
Coordination Control
Management Control
Technical Control

The Secretary of the Navy under a new General Order 19[15] signed on May 21, 1959, revised the administration of shore activities to provide for only two lines of control, (1) military

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[15]Department of the Navy, General Order No. 19, Washington, D. C., May 21, 1959.

command, (2) Management control.

Military Command of shore activities provides for the "efficient military operation and military administration of activities."[16]

Management Control provides for "efficient discharge by shore activities of their individual and collective responsibilities for meeting supporting requirements of the operating forces."[17]

The responsibilities of the Chief of Naval Operations under these two types of control are: (1) planning, forecasting and determining the requirements of the Operating Forces for material, facilities, and personnel; (2) coordinating the efforts of the bureaus and offices of the Navy Department as necessary to effectuate availability and distribution of these requirements; (3) issuing statements of requirements to the bureaus and offices and reviewing and analyzing progress in fulfilling these requirements; (4) collaborating with the civilian assistants in fulfilling requirements of the Operating Forces and in evaluating and strengthening the procedures governing the determination of requirements; and (5) coordinating and integrating the requirements of the Operating Forces, the Marine Corps and the bureaus and offices of the Navy Department into total requirements of the Department.[18]

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[16] Ibid.

[17] Ibid.

[18] Ibid.

Responsibility for Fleet Maintenance Funds

The detailed organization of the Navy and its bilinear concept has been illustrated in detail to highlight the complexity of the financial management of funds for direct support of the Fleet.

Though the chart shows separate responsibility for military command and business administration, in the area of logistic control and administration, it can be seen from the preceding paragraph that the functions of the CNO cut across all lines of direct control.

Though the Comptroller of the Navy's authority and responsibility in the financial matters is exercised through what has been described as technical control, the importance and power of his decisions should not be underestimated. The Comptroller and his staff emphasize that they do not make "military" decisions. However, because of the position of the Comptroller in the organization, and his possession of complete financial information, the CNO is faced with those alternative solutions presented to him by the Comptroller. In any decision making by the CNO and his Advisory Board, it must in fact be one of the Comptroller's proposals which will be the agreed solution.

The danger of the system may often be that the real decision is being made by men within the organization of the Navy who in fact have no legal responsibility for their decisions. This becomes more possible than ever before under the present single O and M appropriation adopted in Fiscal year 1960. The

Navy for the first time has separated the budget system from the bureau system.

The Deputy Comptroller, RADM Beardsley noted in the O & M appropriation hearings that the single appropriation would give greater flexibility.[19] Because, for the first time bureau lines of responsibility may be crossed, greater flexibility may be obtained. This does not actually turn out to be the case in practice because the Office of the Secretary of Defense retains control over the quarterly reviews and apportionment process and must give approval to any adjustments made between activities within the appropriation. (Figure II-3).

The bureau chief on the other hand, while retaining the same responsibility as before is no longer certain whether he will have the necessary money to operate next week. Nor does he know what planned and funded programs may be cut out by higher authority. He has neither a true fixed or flexible budget upon which he can depend throughout the year.

Proposed Changes in Financial Management
of the O & M Appropriation

The D O D as indicated above is carrying on a continuing program to further system controls under the broad directives of Public Law 863. It is not the purpose of this paper to discuss these plans in detail, however brief mention of the present status of development should be known.

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[19] Department of Defense Appropriations for 1960, Hearings Before the Subcommittee of the Committee on Appropriations, House of Representatives, Eighty-sixth Congress, First Session Part 4, Operation and Maintenance, p. 306.

CONTROL OF NAVY FUNDS
THE APPORTIONMENT AND ALLOCATION SYSTEM

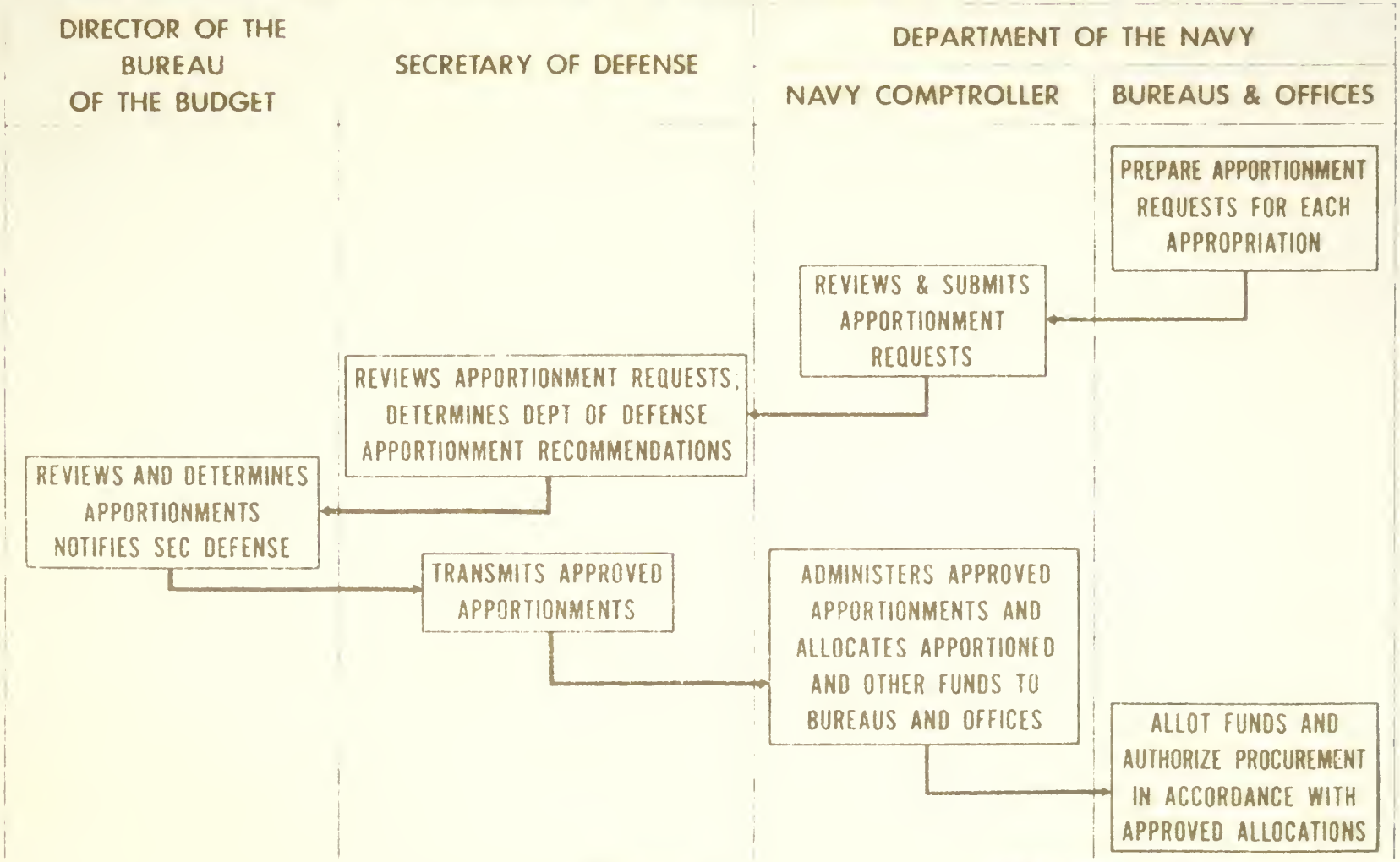

Figure II-3

NAVCOMPT-AUGUST 1953

A Department of Defense directive has been issued for the purpose of establishing basic policies for improved budgeting, administration and management of in the field of O & M.[20] The Secretary of the Navy has endorsed the program and is implementing it through the use of an Ad Hoc Committee to study the problems and plan an implementing time schedule. This appears to be an extremely long range program requiring several years to implement those portions of the program which may prove feasible.

Budget for Overhaul and Repair
for Fiscal Year 1960

The Navy requested and received ships and facilities funds from the Congress for Fiscal Year 1960 in the amount of $850 million. Of this amount $381 million was for the operation and maintenance of the active fleet and $63 million for the new FRAM program. This money was appropriated to provide for the overhaul of 330 ships and the rehabilitation of 33 ships under FRAM.

The Mid-Year Review required under the apportionment system indicates in the case of operation and maintenance of the active fleet (Subhead 2410), there exist unfunded requirements of $11.7 million, $10.8 million of which applies to active fleet overhauls and $5.5 million for FRAM.

Despite this deficiency, the Mid-Year Review Summary by the Nav Compt as presented to the Secretary of Defense

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[20] Department of Defense, Department of Defense Directive No. 7040.1, May 29, 1959.

recommends a decrease in the Ships and Facilities reapportionment of $1.8 million.

Vice Admiral Wilson stated in the Senate Hearings for the O & M appropriations for 1960:

> Mobility is the Navy's greatest asset. The importance to the national security of the mobility of the Navy and Marine Corps was clearly demonstrated in the crisis of Lebanon and Taiwan. . . . But our mobility cannot be exploited unless our ships, aircraft and men are trained reliable and ready. "Operations and Maintenance" buys this immediate readiness.[21]

Senator Stennis during the same hearings stated:

> . . . We all have different impressions, perhaps, but I am a small war man myself. I think what we are going to be called on for is things like Formosa and Lebanon and we will be for a long time.[22]

Despite these statements by the Program Sponsor and a prominent member of the Senate Committee on Appropriations, the Navy's own policy is to provide inadequate funds for the maintenance of the active fleet.

Summary

The combination of O & M funds into one appropriation is certainly a progressive step in financial management. However, again the bilateral organization of the Navy proves to be a barrier to the combination of organization and financial responsibility. Where the Air Force and Army organizations were strengthened by this budgetary control the Navy has added to its

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[21] Department of Defense Appropriations for 1960, Hearings Before the Subcommittee of the Committee on Appropriations, Senate, Eighty-Sixth Congress, First Session, p. 746.

[22] Ibid., p. 792.

difficulties.

Though the Franke Board last year again endorsed the bilinear organization of the Navy, it appears that the next truly progressive step in financial management in the Navy can only come through the installation of a truly functional organization under a Chief of Staff.

CHAPTER III

FLEET MAINTENANCE

Fleet Readiness

The objective of the Operations and Maintenance budget for active ships of the U. S. Navy is to provide the funds necessary to operate and maintain those vessels in a satisfactory state of readiness. Here the concern is with the state of material readiness of the ship including all of its equipment, supplies and maintenance replacement parts.

The great value of a Navy over that of the other three services lies in the Fleet's mobility and ability to sustain itself far from the homeland without support from foreign shores. A naval ship can be self supporting only if its equipment is in the best possible material condition. Equipment must have a built in safety factor, plus the necessary replacement parts to ensure dependability during the given operating period. This period may vary from two weeks to nine months.

It has always been the policy of the U. S. Navy to maintain its ships with its own naval forces, each commanding officer having sole responsibility for the material condition of his ship and the accomplishment of any necessary repairs.

Regular overhauls by a naval shipyard or private shipyard are scheduled at regular intervals and for periods varying with the type ship. For example a major aircraft carrier (CVA)

has a cycle of 36 months with an overhaul of 4 months within that period of time (32 x 4). Limited modernization is accomplished during these overhaul periods at the same time the repairs are made.

Unscheduled periods of industrial work on a ship may be necessary periodically to make repairs of damage sustained in storms or accidents at sea, or to install urgently needed modern equipment which cannot wait for the next overhaul period. These periods are termed Restricted or Technical Availabilities.

Recently a new type of availability has become important to the fleet. It is the Supply Availability and pertains to the complete inventory and replacement of missing items of the ship's supplies and equipage. This is a very important function but also very expensive and time and labor consuming. It is normally accomplished only once on an individual ship.

Material Readiness

There are four major factors contributing to the deteriorating material condition of the Fleet:

1. Tempo of operations
2. Personnel
3. Money
4. Age of Ships

By tempo of operations is meant the large number of world wide commitments placed upon the Fleet since 1945 because of our position as the leading power of the Free World. Our international interests require support by the U. S. Navy, but our force levels are ever decreasing. This requires more

operations by the remaining units, resulting in an increased "tempo of operations" with decreased material upkeep. In the current fiscal year the Navy is inactivating 47 ships now in the active fleet in order to save money for operation of the remainder of the Fleet. Again this reduction in size brings no corresponding reduction in requirements from the Department of State.

The Navy is short in both quantity of men and quality of petty officers. This is a serious contributing factor to the material readiness problem and no solution appears to be in the offing. The pay increases approved by the Congress in 1958 helped in some measure but provided only a partial and temporary solution.

The overhaul funds in the past 10 years have provided adequate repairs to the ships for the short term but have not been adequate for complete system overhauls. As a result entire electrical, electronic and propulsion systems of ships were worn out.

The funds approved by the Congress for naval ship construction since 1945 have been inadequate to provide replacement with modern ships. As a result we are faced with a "block obsolescence" of the Fleet. New construction costs have soared resulting in cut backs even in authorized ship hulls in order to remain within the funds appropriated.

Maintenance and Funding Policies

Fleet maintenance policies are specified in broad terms by the CNO, are amplified and administered by the Fleet Commander,

and are implemented by the Ship Type Commander (Submarine Force, Destroyer Force).

As pointed out in Chapter I there is never sufficient money to support the operational and maintenance needs of the active fleet ships. Because of this need, a general policy has been established in recent years by the Fleet Commanders specifying a priority for the obligation and expenditure of the funds as follows:

Priority 1 Supplies and Equipage
Priority 2 Restricted and Technical Availabilities
Priority 3 Regular Overhauls

Supplies and Equipage are limited in range and depth to what the Fleet Commander feels is most urgent. R & T availabilities cover only those emergency repairs necessary for operational readiness. Regular overhauls are deferred into a subsequent fiscal year if sufficient funds are not available in the current year to pay for the necessary work. Deferral of overhauls in reality is no solution for it means additional overhauls for the following year. Deferral postpones the day of reckoning and disrupts shipyard workload and ship operating schedules. Readjustments of funds are made between ship types as necessary to meet the greatest operational urgency. It is by these policies that the inadequate funds are stretched by the Fleet Commander in attempt to meet the minimum needs of the Fleet.

Maintenance Versus Operations

The Fleet Commander is always faced with a compromise between maintenance and operations. There is a continual attempt

to establish a balance between these two requirements.

However, as the size of the fleet has been reduced, while world commitments remained high, the ships have received less and less maintenance of any kind. Mr. Sheppard highlighted the maintenance problem and pointed the finger at past Navy policy stating:

> In the first place, maintenance money has long been looked upon in the military, from my point of view, as something to draw on when you had emergency or a requirement in another field. It has been a soft touch . . . and I think it is reaching the point where there is quite a stench . . .[23]

This appears to be the first occasion in which the Navy has been officially criticized for failure of its maintenance policies. Though Fleet instructions specify active and continuing programs of preventive maintenance, with the possible exception of the Submarine Force, these policies are not adhered to by the Navy Force Commanders. Priority of operations continually supercedes and overrides maintenance schedules, with the result that maintenance is often first delayed and then forgotten.

Shipboard maintenance cannot be separated from personnel policies. Much of our current maintenance backlog and poor standards stems directly from naval personnel problems both enlisted and officer. Two conditions have combined to make the maintenance personnel problem an acute one in the Navy: (1) the tremendous increase in technology in the Navy since 1945 resulting in more and more complex equipment requiring expert maintenance;

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[23] Hearings before the Subcommittee of the Committee on Appropriations, 86th Congress, First Session, Part 4 Operation and Maintenance, p. 327.

(2) the expanding economy of the country which has fostered a heavy demand for technical men in industry at a much higher pay scale than that of the naval service. Thus the Navy is forced into a position of training men and officers to operate and maintain the equipment, only to lose them to higher paying positions in civilian life.

As a consequence of this low level of training prevailing throughout the Fleet, equipment has deteriorated, operating life has been shortened and repair and overhaul costs of ships have soared.

In addition to the high tempo of operations, and low level of training it should be pointed out that 80% of the total active Fleet was built during World War II. Old age is beginning to take its toll.

When a ship is new it has a designed safety factor throughout which enables the equipment to be operated for long hours with little care. However, with time this safety factor decreases and material failures in the ship increase. During major fleet exercises nowadays casualty reports, or "casreps" as they are called, come with ever increasing frequency as the exercise stretches out in time. Each "casrep" is an indication of some decrease in the ship's operational capability to carry out its assigned task and mission. Unfortunately the report may also include a personnel casualty ranging in nature from minor to fatal.

A recent development within the Atlantic Fleet is of great significance to the ship maintenance program and requires

comment. In the fall of 1959 Admiral Jerauld Wright, then Commander in Chief of the U. S. Atlantic Fleet, appointed a board to study the utilization of tenders and repair ships and to report on ways to improve self-maintenance of the Fleet.[24]

The report of the Board is excellent and contains many recommendations which should result in better utilization of available fleet repair facilities. However, the outstanding and major recommendation is that "properly planned and firmly scheduled upkeep periods have precedence over all operations except overseas and other extended deployments."[25]

It was pointed out by Admiral Wright that this was not a new concept. The principle is a stated CNO policy which has seldom if ever been adhered to by the Navy. Though the Board set out only to study utilization of tenders by the Fleet, this recommendation may be far reaching in placing material maintenance and material readiness on a par with operations. This has never before been accepted in the Navy, but it must be if the Fleet is to remain a major naval power.

Material Maintenance

Fleet instructions require that ships maintain a Current Ships Maintenance Program (CSMP) on each piece of equipment on board. Value of this program of course varies between ships

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[24] United States Atlantic Fleet, CincLantFlt letter serial 243/41 January 20, 1960.

[25] Ibid.

directly with the level of experience and training of the engineer officer and the interest of the commanding officer.

Progressive maintenance is conducted by the ships company with assistance of tenders, repair ships and the repair bases supporting the Fleet. Where repairs are beyond the capabilities of the crew, or too large to be handled by the available fleet facilities, the ships are scheduled for work in naval or privately owned shipyards.

Shipyard work, whether scheduled or unscheduled, requires detailed planning by CNO, Fleet Staffs, the Bureau of Ships and the Naval Shipyard. The scheduling is complex because each ship is already tightly scheduled on an annual basis in order to meet its operational commitments. The Naval Shipyard on the other hand must try to maintain a level workload while meeting deadlines for completed ships returning to the Fleet Commander. The Bureau of Ships is faced with the additional responsibility for maintaining a proper division of work between the shipyards.

Regular overhaul schedules are issued by the CNO and are planned over three year periods. These overhaul schedules are integrated with the Annual Fleet Operating Schedules. Unscheduled overhauls (R&T) are arranged between the Fleet and the Shipyard Commander as workload and operating schedules permit.

Superimposed upon the operating and industrial scheduling is the humanitarian requirement to repair the ship in or near its homeport. In these days when ships are often away from their homeports 10 months out of each year, there can be little argument with this premise. Though the ships crews would probably

never believe it, long hours are spent by the planning officers in attempting to schedule ship repairs in homeports.

New Developments

Maintenance improvement is often gained by complete replacement of old equipment with new developments. These improvements are mandatory to keep a fleet modern, but they also aid the maintenance program by replacement of material which may be obsolete and beyond economical repair.

New developments reach the Fleet through a Ship Alteration Program. An Alteration is defined as any change in the ships allowance, equipage or supplies. These alterations are accomplished through two basic programs: (1) Military Improvement Plan (MIP); (2) Ordinary Improvement Plan (OIP). These two plans are authorized by the CNO, administered by the Bureau of Ships, and are funded under a separate budget activity under Ships and Facilities, Navy.

It is not intended here to cover the Ship Alteration Program except as it affects overall fleet maintenance. However, it is important to note that over the past ten years as new improvements have been developed through research, adequate funds have not been budgeted to provide for installation. In addition as new programs or emergencies have arisen, money which had been approved by the Congress for alterations to the ships, has been diverted. As a result a large backlog of new and modern equipment for the fleet remains in supply warehouses for lack of installation money. Thus, increased maintenance of the old

equipment is required with a resulting increase in cost and lack of fleet modernization.

Each year as equipment and systems become larger and more complex the installation costs increase and the "gap" between the installation funds required and allotted also increases. For example a nuclear-powered submarine such as Nautilus costs three to four times more to overhaul than a conventional submarine. Operating costs run in about the same proportion. As increasing numbers of nuclear-powered ships join the Fleet, this will continue to be a growing element of cost.

Bureau of Ships Maintenance Responsibilities

The responsibility for new developments reaching the Fleet is only one of the Bureau of Ships maintenance responsibilities. The Bureau is directly responsible for the inspection and maintenance standards for each piece of equipment on board ship, the details of which are completely specified in the Bureau of Ships Manual. Instructions on specific problems of ship maintenance and safety are continuously provided by the Bureau, to the Fleet, as new equipment and systems are installed and operated.

Under the management and technical controls described in Chapter II, the Bureau of Ships operates a far flung industrial complex of naval shipyards and repair activities. These shipyards provide the nucleus for the industrial support of the Fleet in peacetime. In these activities are maintained the knowledge and skills required to support the Fleet and enable it

to operate at the time and place of our choosing.

As a part of this management responsibility the Bureau shares with the individual yards the responsibility for performing better work at lower costs. Through various work measurement, cost control and quality control programs the Bureau and Naval Shipyards have continuously attempted to provide better work at lower costs.

That these programs have not met with complete success is indicated by the fact that shipyard costs have increased at about 7% over the Dept. of Commerce Price Index. In 1959, Rear Admiral R. K. James, now Chief, Bureau Ships, headed a panel which investigated this problem in detail in an attempt to ascertain the reason for increased costs, and make recommendations to the CNO and Secretary of the Navy which would cancel the upward trend.

The Naval Shipyards are presently engaged in extensive programs to reduce costs and continually improve work quality standards. The problem in ship repair is a difficult one because of the type of work, the complexities of work scheduling with fleet operations, and the need to maintain level workloads.

Through the Bureau of Ships the Naval Shipyards maintain technical support to the Fleet in the form of engineering and production assistance as requested. This support may be in port, at sea, or on foreign shores.

The satisfactory accomplishment of ship work within a naval shipyard requires the mutual efforts of the officers and men of the ship as well as those of the shipyard.[26] Continuous

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[26] R. J. Knox, How to Improve Your Shipyard Overhaul, A.S.N.E. Journal, November 1955, pp. 903-908.

efforts are made by the officers of the Fleet, the Naval Shipyards and Industrial Managers toward improving the relationships between the Fleet Customer, and the Shipyard Producer. However this is a never-ending problem of training and indoctrination.

Fleet Rehabilitation and Modernization

In January 1959 a bold step forward was taken by the CNO in an attempt to arrest the rapid deterioration of the Fleet. This program was entitled FRAM, standing for Fleet Rehabilitation and Modernization.[27] The program was a direct result of the Blewitt Report, referred to in Chapter I, which outlined the deplorable material condition of the U. S. Atlantic and Pacific Fleets.

The objective of the FRAM program is "to improve the material readiness of the Fleet by a phased program of modernization and rehabilitation to extend the useful life of World War II built ships and thereby alleviate the trend toward block obsolescence."[28] It was noted that this program was a complement to and not a substitution for the annual shipbuilding and conversion program.

The rehabilitation applied primarily to anti-submarine type ships and was classified by two types:

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[27] Department of the Navy, Chief of Naval Operation Instruction 4700.14, February 6, 1959.

[28] Ibid.

> Mark I - A complete rehabilitation of all shipboard components which will extend the useful life by about eight (8) years combined with the maximum degree of modernization that can be provided. . . .[29]
>
> Mark II - A rehabilitation of all shipboard components which will extend the useful life about five (5) years, together with a significant modernization of weapons systems, electronics and communications.[30]

Along with these two extensive overhauls the CNO endorsed a policy of "complete" overhauls for all ships undergoing overhaul. This policy had originated within the U. S. Atlantic Fleet but was extended to both fleets. "Complete" overhauls are defined as overhauls in which all urgent repairs are completed. The Fleet Commander provides the necessary additional funds (if the cost exceeds the original planning estimate) from funds diverted from a ship scheduled for overhaul later in the fiscal year. This funding process will be discussed in Chapter IV.

The selection of each vessel for the FRAM program is done on individual basis after complete inspection by the Board of Inspection and Survey. Mark I types are included in the new construction and conversion program and authorized annually by the Congress. Mark II types are scheduled by the CNO as a part of the annual Regular Overhaul Schedule. The Fleet Commander controls those funds required for the rehabilitation portion of the overhaul while the Bureau provides the modernization funds.

The policy of the CNO has been that in FRAM dollar

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[29] Ibid.

[30] Ibid.

limitations would not control. It was felt that the ship would be complete regardless of cost. This policy is still in effect, however, because of increasing costs, limitations have been set by the CNO for each type ship undergoing FRAM.

Summary

For many years the Navy either through lack of interest or poor salesmanship has been unable to convince higher budgetary reviewing authorities of the acute material condition of the Fleet. The readiness of the Fleet for war was jeopardized by the level budget and the shrinking value of the dollar. The Navy as an instrument of national policy can be effective only if it is truly ready and shows itself to be capable of immediate and sustained operations in any area.

Some improvement has been made with the inception of the FRAM program calling for the modernization of 255 ships over the 5 year period from 1959 through 1963.[31] Two ships were scheduled in 1959, 26 in 1960, 27 in 1961 and the remainder through 1963. This is one-third of the active fleet and primarily in the area of anti-submarine warfare. However, even this program as comprehensive and ingenious as it is, only postpones the day of reckoning for the Fleet. The lack of new construction, the lack of adequate funds and trained personnel are problems still with us. The CNO policy of getting as much "Future Navy" as possible while

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[31] Department of Defense Appropriations for 1960, Hearings Before the Subcommittee on Appropriations, House of Representatives, 86th Congress, First Session, Part 4 Operation and Maintenance, p. 320.

still "maintaining" an operating Navy is excellent provided we do not also carry our present problems into the future.

CHAPTER IV

ACCOUNTING FOR FLEET AND MAINTENANCE FUNDS

Sub Allocation of Funds to Fleet Commanders[32]

Funds under the appropriation Operation and Maintenance, Navy, for repairs, overhauls, and supplies and equipage of ships of the active fleet, are suballocated by the Bureau of Ships to the Commander in Chief, U. S. Atlantic Fleet, and the Commander, Service Force, U. S. Pacific Fleet. Commander, Service Force, U. S. Pacific Fleet acts as the principal logistics agent for Commander in Chief, U. S. Pacific Fleet.

The suballocations are made by the Bureau of Ships on advice of Suballocation (NAVSHIPS Form 4408 - 1) Figure IV-1. The Major Activity is Ships and Facilities, Navy and the Budget Activity is Operation and Maintenance of the Active Fleet. The suballocation represents a legal limitation subject to the Administrative Control of Funds Regulations (3679 Revised Statutes).

Each suballocation is divided into four quarterly amounts. These quarterly amounts are a legal limitation which may not be exceeded in the quarter in which they are allocated. The amounts specified for future quarters are not available for commitment, obligation or expenditure until the specific quarter allocated.

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[32]Department of the Navy, Bureau of Ships Instruction 7303.23E, June 15, 1959.

Amounts specified for future quarters are not available to the Bureau of Ships until the quarterly apportionments from the Bureau of the Budget on the first day of the quarter. Therefore violation of the Federal statutes would occur if funds were committed in advance of a quarter.

The financing of ship repair, overhaul, and supplies and equipage is handled under Subhead 2410. Under this subhead are established major projects. Examples of these projects are:

Project 10--Atlantic Fleet Overhauls in Naval Shipyards.

Project 11--Atlantic Fleet Overhauls in Private Shipyards.

Project 24--Pacific Fleet Supplies and Equipage

Planning estimates are established by the Bureau for each of the major projects. (NAVSHIPS 4408-1A), Figure IV-2. A planning estimate is a term used by the Bureau and the Fleet in the administration of funds. A planning estimate is defined by the Bureau as an estimated cost established for a segment of work under a project order. The Fleet Commander further defines the planning estimate as the estimated cost established for a segment of work under a project order <u>or</u> allotment, <u>usually</u> the work on one ship during a specific availability.

Because planning estimates are an administrative function, they do not establish a legal limitation and therefore may be exceeded. Adjustments between projects may be made by the Fleet without reference to the Bureau of Ships provided the total and quarterly amounts are not exceeded. However, any adjustments of the planning estimates must be reported by the Fleet Commander to the Bureau.

The Fleet Commander is the funds administrator for all funds authorized under the Advice of Sub-Allocation and Advice of Planning Estimate, and is required to administer these funds in accordance with the procedures of the Nav Compt Manual. In the case of supplies and equipage an additional instruction is provided.[33]

The funds for supplies and equipage are actually allotted to the Type Commander for his funds administration and control. From this allotment each Type Commander assigns a target amount for each ship and unit within his administrative control. These targets are called OPTAR and are assigned to the Commanding Officer each quarter. The Commanding Officer is required to make a monthly report of the status of his obligations by the 10th of the month. These reports are then consolidated by the Tycom who then reports his total obligations to the Fleet Commander.

The primary purpose for supplies and equipage allotments is "to support changes for items required for operations and day-to-day maintenance (except BUMED allowance lists) for which reimbursement is required."[34] In Chapter III it was pointed out that the Fleet has established the highest priority for S & E because of the primary need to maintain the ships in a self supporting condition for immediate and sustained operations in any area. The policy of range and depth of the allowance of maintenance parts must be a command decision of the Fleet Commander.

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[33]Department of the Navy, Bureau of Ships Instruction, 7303.41D, June 26, 1959.

[34]Ibid.

Fleet Allotments and Sub Allotments

The preceding section pointed out the procedure by which the U. S. Atlantic and U. S. Pacific Fleets receive funds for Operation and Maintenance of the Active Fleet. It is emphasized that these funds are allocated based on the budget as approved by the Congress for the operation, maintenance, repair and overhaul of a specific number of ships during the fiscal year.

The regular overhaul schedule is issued by the CNO and is arranged by type of ship. The schedule lists the ship by hull number, dates of the overhaul period and overhauling shipyard. The starting dates of these overhauls may not be varied by more than 3 weeks without the specific approval of the CNO.

The unscheduled repairs, called Restricted or Technical Availabilities are actually scheduled by the Type Commander and fitted into the Fleet Operating Schedule. This of course would not include emergency type repairs. The budgeted funds were approved on the basis of the best fleet estimates using known requirements and past history. The S & E estimates are based on past history and deficiencies in allowance as reported by the individual ships.

Suballocated funds are administered solely by allotment. When the Fleet Commander receives his suballocation of funds from the Bureau he grants himself a single allotment using the number 995 in each case. He then issues project orders from this allotment. Figs. IV-3 and IV-4 are included to show examples of allotments and project orders which may be issued by the Fleet

CE OF SUB-ALLOCATION
IPS 4408-1 (REV. 7-57)

I: Chief, Bureau of Ships	SERIAL NUMBER S&F 60- 592
Commander-In-Chief, U. S. Atlantic Fleet U. S. Naval Base Norfolk 11, Virginia	CHANGE NUMBER FOR THIS PROJECT LANT-5
OPRIATION: Operation & Maintenance, Navy, 1960 or Activity -3- Ships and Facilities head - Maintenance and Operation of the ActFlt	DATE ISSUED 4 April 1960 / EFFECTIVE DATE 4 April 1960 APPROPRIATION AND SUBHEAD SYMBOL 1701804.2410
CT TITLE	PROJECT NUMBER

PERIOD COVERED (1)	ORIGINAL ISSUE OR PREVIOUS NET AMOUNT (2)	BUREAU ADJUSTMENTS + OR - (3)	FIELD ADJUSTMENTS + OR - (4)	REVISED NET AMOUNT (5)
1ST QUARTER	$ 60,255,000.00	$ 0	$ 0	$ 60,255,000.00
2ND QUARTER	48,103,000.00	0	0	48,103,000.00
3RD QUARTER	55,056,000.00	0	0	55,056,000.00
4TH QUARTER	30,783,000.00	+ 2,521,000.00 1/	0	33,304,000.00
TOTAL SUB-ALLOCATION	$194,197,000.00	$ + 2,521,000.00	$ 0	$ 196,718,000.00

NCES
(a) Apportionment & Reapportionment Schedule (DD 1105) approved by BuBud
(b) Budget Activity Allocations (NavCompt 2057) approved by NCB

S

In accordance with references (a) and (b) the change in the Advice of Sub-Allocation (NavShips 4408-1) of "Operation and Maintenance, Navy, 1960" funds is approved.

1/ Includes $1,500,000.00 for the over-run on the (NAUTILUS) SS 571 overhaul.

financial control, jurisdiction and responsibility for amounts allocated herein is passed to the pient".

CTIONS: WHEN ALLOCATIONS ARE GRANTED FOR MORE THAN ONE QUARTER, AMOUNTS AUTHORIZED FOR OTHER THAN THE CURRENT QUARTER WILL NOT BE AVAILABLE FOR MENT, OBLIGATION OR EXPENDITURE UNTIL THE FIRST DAY OF THE APPLICABLE QUARTER

RIZING SIGNATURE J. J. FEE Comptroller	DISTRIBUTION CODES 408D(3) 408D.1(2) 2776 2781		
	ORGANIZATION CODE 2700	PREPARED BY F. DUVALL	CODE 2728

Figure IV-1

Chief, Bureau of Ships	FLEET ADJUSTMENT NUMBER:
Commander-In-Chief, U. S. Atlantic Fleet U. S. Naval Base Norfolk 11, Virginia	BUREAU ADJUSTMENT NUMBER: LANT-5 DATE ISSUED: 4 April 1960 / EFFECTIVE DATE: 4 April 1960
IIATION AND SUBHEAD TITLE: Navy 1960 - S&F. - M&O OF THE ACTIVE FLT.	ADVICE OF SUB-ALLOCATION SERIAL NUMBER S&F 60- 592

T TITLE: Atlantic Fleet Overhauls — PROJECT NUMBER: 10

RIOD ERED (1)	ORIGINAL ISSUE OR PREVIOUS NET AMOUNT (2)	BUREAU ADJUSTMENTS + OR - (3)	FIELD ADJUSTMENTS + OR - (4)	REVISED NET AMOUNT (5)
T QUARTER	$ 29,788,000.00	$ 0	$ 0	$ 29,788,000.00
ND QUARTER	18,375,000.00	0	+ 2,000,000.00	20,375,000.00
D QUARTER	26,982,000.00	0	- 1,400,000.00	25,582,000.00
TH QUARTER	12,810,000.00	+1,691,000.00	- 732,000.00	13,769,000.00
L - NING EST IMATE	$ 87,955,000.00	$ +1,691,000.00	$ - 132,000.00	$ 89,514,000.00

T TITLE: Atlantic Fleet Restricted Availabilities — PROJECT NUMBER 16

T QUARTER	$ 10,500,000.00	$ 0	$ 0	$ 10,500,000.00
ND QUARTER	6,538,000.00	0	0	6,538,000.00
D QUARTER	6,000,000.00	0	+ 1,800,000.00	7,800,000.00
TH QUARTER	3,176,000.00	0	- 900,000.00	2,276,000.00
L - NING EST IMATE	$ 26,214,000.00	$ 0	$ + 900,000.00	$ 27,114,000.00

T TITLE: Atlantic Fleet Supplies and Equipage — PROJECT NUMBER: 20

T QUARTER	$ 18,500,000.00	$ 0	$ 0	$ 18,500,000.00
ND QUARTER	13,815,000.00	0	- 2,000,000.00	11,815,000.00
D QUARTER	13,750,000.00	0	- 400,000.00	13,350,000.00
TH QUARTER	9,663,000.00	0	+ 1,632,000.00	11,295,000.00
L - NING EST IMATE	$ 55,728,000.00	$ 0	$ - 768,000.00	$ 54,960,000.00

T TITLE: Atlantic Fleet - "FRAM" Program — PROJECT NUMBER: 30

T QUARTER	$ 1,467,000.00	$ 0	$ 0	$ 1,467,000.00
ND QUARTER	9,375,000.00	0	0	9,375,000.00
D QUARTER	8,324,000.00	0	0	8,324,000.00
TH QUARTER	5,134,000.00	+ 830,000.00	0	5,964,000.00
L - NING EST IMATE	$ 24,300,000.00	$ + 830,000.00	$ 0	$ 25,130,000.00

Figure IV-2

NCE:

PROJECT ORDER [illegible]
NAVCOMPT FORM 2053 (12-58)
BUSHIPS (OVERPRINT) 11/SCN/4 (278.)

1. TYPE	2. DATE ISSUED	3. EXPIRATION DATE
☐ FIXED PRICE ☒ COST REIMBURSEMENT		31 May 1961

4. ORDERING COMPONENT

NAME AND LOCATION
CHIEF, BUREAU OF SHIPS
DEPARTMENT OF THE NAVY, WASHINGTON 25, D.C.

5. PERFORMING ACTIVITY

a. NAME AND LOCATION	b. ACCOUNTING NO.	c. ACCOUNTABLE ACTIVITY
Commander, Philadelphia Naval Shipyard Philadelphia, Pennsylvania	151	151

6. PROJECT ORDER NO	7. AMENDMENT NO.	8. CUMULATIVE TOTAL
730		99,100.00

9. ACCOUNTING DATA

a. APPROPRIATION AND SUBHEAD	b. ALLOTMENT	c. EXPENDED ACCOUNT	d. OBJECT CLASS	e. CHARGEABLE ACTIVITY ACCTG NO.	f. AMOUNT
17X[illegible]11.24[illegible]	99[illegible]			24	99,100.00

10. DELIVERY INSTRUCTIONS

a. PLACE	b. DATE	c. METHOD

11. DESCRIPTION OF WORK TO BE PERFORMED AND OTHER INSTRUCTIONS (If more space is required, attach additional sheets)

[illegible] Accounting No.
[illegible] [illegible]

Project	Cost Cat.	S/A		Amount Authorized
1[illegible]	3A		[illegible]	99,100.00

[illegible]
[illegible]
[illegible]
I
[illegible]
506
[illegible]24 21
[illegible]
2774
[illegible]

REQUESTED	CODE	RECOMMENDED	CODE
[illegible]	722	(SD-) [illegible] WELLINGTON	506

12. This Order is placed in accordance with the provisions of 41 U.S.C. 23 and applicable project order regulations. Work to be performed and material to be procured pursuant to this Order are properly chargeable to the appropriation or other accounts indicated above until the expiration date of this Project Order. Funds, in the amount shown under "Accounting Data," have been committed and will be obligated, upon receipt of the acceptance copy by the ordering component.

a. AUTHORIZING OFFICER (Typed name and title)	b. SIGNATURE

13. ACCEPTANCE	The above terms and conditions are satisfactory and are accepted.		
	a. DATE	b. ACCEPTING OFFICER (Typed name and title)	c. SIGNATURE

Figure IV-3

G-6670

ROJECT ORDER
.VCOMPT FORM 2053 (12-58)

1 TYPE	2. DATE ISSUED	3 EXPIRATION DATE
☐ FIXED PRICE ☐ COST REIM-BURSEMENT		

4 ORDERING COMPONENT

NAME AND LOCATION

5 PERFORMING ACTIVITY

NAME AND LOCATION	b ACCOUNTING NO	c ACCOUNTABLE ACTIVITY

PROJECT ORDER NO.	7 AMENDMENT NO	8 CUMULATIVE TOTAL

9 ACCOUNTING DATA

APPROPRIATION AND SUBHEAD	b ALLOTMENT	c. EXPENDED ACCOUNT	d OBJECT CLASS	e CHARGEABLE ACT'Y ACCT'G NO	f AMOUNT

10 DELIVERY INSTRUCTIONS

a PLACE	b. DATE	c METHOD

11 DESCRIPTION OF WORK TO BE PERFORMED AND OTHER INSTRUCTIONS (*If more space is required attach additional sheets*)

12. This Order is placed in accordance with the provisions of 41 U.S.C. 23 and applicable project order regulations. Work to be performed and material to be procured pursuant to this Order are properly chargeable to the appropriation or other accounts indicated above until the expiration date of this Project Order. Funds in the amount shown under "Accounting Data" have been committed and will be obligated, upon receipt of the acceptance copy by the ordering component.

a AUTHORIZING OFFICER (*Typed name and title*)	b SIGNATURE

13 ACCEPTANCE	The above terms and conditions are satisfactory and are accepted		
	a DATE	b ACCEPTING OFFICER (*Typed name and title*)	c SIGNATURE

U. S. GOVERNMENT PRINTING OFFICE 1959 OF—492850

ALLOTMENT/SUBALLOTMENT AUTHORIZATION
NAVCOMPT FORM 372 (REV. 6-57)

EXAMPLE

ALLOTMENT NO. 006
SUPPLEMENT NO.

FROM: Chief, Bureau of Ships, Navy Department
Washington 25, D. C.

TYPE OF AUTHORIZATION
[X] NEW [ ] AMEND. NO.

(Activity Code)
5855-700

Commanding Officer
U. S. Naval Ship Repair Facility
Subic Bay Luzon, P. I.

62770

ALLOTMENT ACCOUNTING OFFICE
ACCOUNTING NO. 651
(Name and address)

NSD SUBIC

TITLE OF APPROPRIATION AND SUBHEAD
SCN SH59

APPROPRIATION SYMBOL AND SUBHEAD
17X1611.59

AUTHORIZATION

The total of this authorization is allotted to fund the purpose stated under "Instructions" and is subject to all limitations specified therein. All financial control, jurisdiction, and responsibility under Section 3679 R.S. and regulations thereunder, for the total amount allotted, is passed to the addressee. To accomplish the purpose of this allotment, amounts assigned to budget projects may be adjusted within the total limitation but cumulative adjustments to any one budget project totaling 10% or more must be reported to the allotter in accordance with NavCompt Manual, Volume 2.

PROJECT NO.	TITLE OR DESCRIPTION	PREVIOUS ADJUSTED AUTHORIZATION	AMOUNT OF THIS AUTHORIZATION
97 1A	AFDL-5, Acctg. No. 78229 E/A 14011. Cover the survey of and preparation of a work list for AFDL-5		$5,000.00
	TOTAL		$5,000.00

INSTRUCTIONS:

Confirms BUSHIPS MSG 072103Z October 1958

Copy to:
NAVCOMPT (NCA)
508D3
526
516B
277A
278A

REQUESTED R. J. DAVIS (Sig.)	CODE 508D	RECOMMENDED R. J. DAVIS (Sig.)	CODE 508D
DATE	APPROVED		

Figure IV-4

LOTMENT/SUBALLOTMENT AUTHORIZATION

VCOMPT FORM 372 (REV 6-57)

ALLOTMENT NO. _____

SUBALLOT NO _____

OM	TYPE OF AUTHORIZATION ☐ NEW ☐ AMEND NO _____
(Activity Code) _____	ALLOTMENT ACCOUNTING OFFICE ACCOUNTING NO _____ (Name and address)
TLE OF APPROPRIATION AND SUBHEAD	APPROPRIATION SYMBOL AND SUBHEAD

AUTHORIZATION

The total of this authorization is allotted to fund the purpose stated under "Instructions" and is subject to all limitations specified therein. All financial control, jurisdiction, and responsibility under Section 3679 R. S. and regulations thereunder, for the total amount allotted, is passed to the addressee. To accomplish the purpose of this allotment, amounts assigned to budget projects may be adjusted within the total limitation but cumulative adjustments to any one budget project totaling [illegible] or more must be reported to the allotter in accordance with NavCompt Manual, Volume 2.

PROJECT NO	TITLE OR DESCRIPTION	PREVIOUS ADJUSTED AUTHORIZATION	AMOUNT OF THIS AUTHORIZATION

TOTAL

INSTRUCTIONS

DATE APPROVED

U. S. GOVERNMENT PRINTING OFFICE 1957 O - 425075

Commander to the Industrial Activity accomplishing the work.

Repairs accomplished during regularly scheduled overhauls and FRAM work at Naval Activities are financed by a single project order issued directly to the activity. Other repair work at a naval activity may be financed either by project order or allotment. All repair work at privately owned shipyards is financed by one allotment granted directly to the Industrial Manager. The Industrial Manager is the naval technical representative for the Naval District in which that shipyard is located.

Examples of project orders issued to naval activities are as follows:

Activity	Project Order Number
ComNav Shipyd Chasn	10 995 705 60

10 - Budget Activity
995 - CincLantFlt activity number
705 - NAV SHIPYD CHASN activity number
60 - Fiscal year for which issued.

Project orders are issued in June to be effective on 1 July on each fiscal year.

Examples of allotments issued to naval activities for work by either naval or private repair activities are:

Activity	Allotment Number
Industrial Manager USN 6 ND	11006/60
ComNav Shipyd Chasn	16007/60

Authorization of Work and Administration of Maintenance Funds

Each Fleet Commander has under his command a Type Commander for each ship type. Using the Atlantic Fleet as an example they are as follows:

Commander Cruiser Force	(Cruisers)
Commander Destroyer Force	(Destroyers)
Commander Naval Air Force	(Carriers)
Commander Submarine Force	(Submarines)
Commander Service Force	(Logistic Support)
Commander Amphibious Force	(Amphibious)
Commander Mine Force	(Minecraft)

The Type Commander is delegated the responsibility by the Fleet Commander for the maintenance of his type ships and supplying of these ships to the Operational Commanders. Each Type Commander has a Maintenance Officer on his staff for the support of this maintenance responsibility. The maintenance officer and his assistants must know the material condition of each ship of the type at all times, and the planned maintenance and overhaul program for the past, current and succeeding year. The Type Commander's Maintenance Officer works closely with the ship commanding officer, and the maintenance officers of the Fleet, Bureau, CNO and each Naval Shipyard.

Planning of a Ship's Overhaul at a Naval Shipyard

Each ship is required to prepare work requests covering <u>all</u> known work at least 70 days prior to the start of an overhaul. These work requests are submitted to the naval shipyard or industrial manager at least 70 days prior to the start of the overhaul via the chain of command for review and approval.

Fleet Commanders require a pre-arrival inspection of the ship by the overhauling activity five to six weeks prior to the start of the overhaul. This inspection assists the ship and the shipyard in making preliminary estimates of the amount of work which may be required. In addition, the preliminary estimates of costs as made by the shipyard indicate to the Fleet and Type

Commanders what excess funds may be needed for urgent work above the previously budgeted amount.

The work requests as forwarded by the Type Commander contain a work list number and a statement of the planning estimate to be established. The Fleet Commander upon receipt of a copy of the forwarding endorsement establishes a planning estimate for this hull number and amends the project order or allotment.

Immediately prior to the start of the overhaul an arrival conference is held with representatives of the ship, type commander and shipyard. At this time all known work to be accomplished during the overhaul is authorized by the Type Commander's representative within the funds available. Any changes in scope of work during the overhaul, or change in estimated costs, require a change in the planning estimate by the Fleet Commander. In the case of the Pacific Fleet the individual type commander is authorized to issue the planning estimate. This information is normally provided by naval message followed by amendment using Nav Compt Forms 2053 or 372.

In the case of Restricted or Technical availabilities the Atlantic Fleet delegates the authority to the Type Commander to establish and revise all planning estimate for his ships. Pacific Fleet delegates this authority for all overhauls.

Shipyards generally establish a Commander's Order to finance overhaul work authorized by the Type Commanders due to the time lag occurring between receipt of the planning estimate message and the allotment or project order amendment. This is later transferred into a Customer Order upon receipt of the amendment.

In the accomplishment of the work at a naval shipyard it is the present policy of the Fleet to require a firm total price of all work to be done on the ship as early in the overhaul as possible. (In the case of an Industrial Manager or Naval Repair Activity not under the industrial fund it is necessary that an early determination of final cost be made but no firm price is requested). The reason for emphasis by the Fleet on firm price or accurate final cost as early as possible is two-fold. First, in the case of firm pricing it tends to cut down late authorization of work which may be unnecessary and costly. Second, it provides the Fleet Commander better and earlier information, thus enabling him to more efficiently utilize his available funds.

Firm prices as established by the naval shipyard must be accepted by the Type Commander, and the Fleet Commander so informed. Where the firm price is not acceptable the final amount is settled by negotiation.

Records and Reporting Procedures

Good management practice and maximum value per dollar appropriated require that the Fleet maintain adequate accounting procedures for their limited funds resources. This is accomplished by the Fleet Commander who maintains a Fiscal Officer and small staff for this purpose.

The records maintained by the Fleet Commander consist of

A. Check book records to show planning estimates issued against each Type Commander's planning limitations and the balances available to each Type Commander.
B. Informal records of planning estimates issued to

each shipyard by all Type Commanders to show requirements for project order amendments.
C. Card record of planning estimate for each ship to show latest revision.
D. Funds Resources Ledger (NavCompt Form 2030) showing commitments, obligations, expenditures, unallotted balance, allotments and unexpended balance.

The Type Commander is required to maintain only check book type records to show planning estimates, amendments and planning limitations available for issue.

The Naval Shipyard establishes a separate Customer Order for each ship overhaul generally converting a previously established Commander's Order. The records maintained are:

A. Fund Resources Ledger to show total accrued costs as obligations of the project order.
B. Maintains customer order costs (ship hull number) and individual job order costs.

The shipyard prepares a monthly management report for the information of the Fleet Commander, Type Commanders and the Bureau of Ships which shows the planning estimates, the shipyard's latest estimate, obligations incurred (accrued costs to date) and expenditures (billings to date). In addition a monthly report is made to the Fleet Commander by the Shipyard of the status of all project orders held by the yard.

The Navy Regional Accounts Offices (NRAO) in Norfolk and Oakland assist the Atlantic and Pacific Fleet Commanders respectively, by making monthly reports of supplies and equipage obligations broken down by Type Commanders. This information on the allotment status is then entered in the Fleet general ledgers.

Suballocations are reported to the Bureau of Ships on a monthly basis by the 18th of each month by the Fleet Commander,

giving status obligations and unobligated balances both monthly and cumulative to date. The Bureau then posts the information to its appropriation ledgers.

Expenditure data is received by the shipyard and the Bureau on the basis of vouchers received from all Navy Regional Accounts Offices. The Fleet Commander formerly received expenditure information in summary form from the Bureau for recording in his Funds Resources Ledger and liquidating of obligations. However, since July 1, 1959 the Nav Compt has no longer required such a summary and the Fleet Commander is required to provide his own consolidation from monthly reports received from all the NRAO's.

Summary

The present system of accounting for fleet maintenance funds appears to be satisfactory with the exception of the area of expenditure accounting. Good management and legal limitations require the Fleet Commander maintain accurate accounting of obligations and commitments. With the assistance of the Naval Shipyards and Regional Accounts Offices he is able to do this satisfactorily.

Though expenditure accounting serves no useful purpose to the Fleet Commander, he is required to maintain expenditure accounts and attempt to reconcile expenditures with obligations. This appears to be a wasteful and time consuming procedure for which he has neither the manpower nor the required information to establish a balance. This requirement should be eliminated by the Naval Comptroller.

CHAPTER V

SUMMARY AND CONCLUSIONS

The previous four chapters have described in some detail the budget, organization and methods required in maintenance support of the Active Fleet. It should be recognized that many of the problems which exist in this area also apply throughout the entire defense budget. The problems are inherent in any discussion of defense posture now being discussed by the Congress and several prominent retired flag officers.

Mr. Franke summed up the basic defense budget problem very well in his statement before the House Subcommittee on Appropriations:

> The necessity of balancing requirements against resources, the tremendous advances in weapons technology, the increase in the cost of almost everything we buy--all of these have contributed to the difficulties of budget preparation. While the military strength of our country is of predominant importance if we are to survive the threats we face, the economic welfare of the country, too, is of importance.[35]

This year, as never before, there have been heated words spoken by the President as well as certain leaders in the Congree concerning what is "adequate" military strength for this country. Nearly everyone agrees that we should have all the

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[35] Hearings Before the House Subcommittee of the Committee on Appropriations, 86th Congress, Second Session, Part 2, Policy Statements, p. 2.

military strength necessary but we cannot "afford" to be wrong in our choice.

In this paper I have previously criticized the lack of a plan by the CNO for maintenance support of the active fleet. I have pointed out that there seemed to be no policy in the distribution of funds between programs in the Navy's budget. A review of the proposed Navy budget for fiscal year 1961 and the hearings before the Congress in support of this budget, indicate that the CNO has for the first time put forth a well planned well balanced budget.

Of great importance to this budget is the expenditure limitation which has not been previously discussed. However, annual expenditure limitations appear to be here to stay and future budgets must reckon with this limitation if we are to maintain the annual balance of revenue and cost.

In order to meet the expenditure limitation but still have money for continuing programs it is necessary to balance between the annual accounts for maintenance operation and personnel, with the continuing accounts of procurement, research and construction. Continuing accounts spend out at average rates of 20 percent during the year appropriated, and 26 percent and 54 percent in the two following years, while annual accounts are spent in the year appropriated. Thus with the present expenditure limitations, too large an annual account will leave nothing for procurement or research.

The resulting budget must be a compromise between force levels and procurement and research. The Navy is faced with

a gradually shrinking establishment which must be maintained at the highest level of efficiency. No longer can we afford to carry unproductive programs, people or activities.

Present plans point toward a continuing reduction in the Fleet and the Shore Establishment. This trend will probably continue by steps for some time in the future. The Navy for 1961 will for example, be reduced by 47 ships, 400 aircraft, 3000 military and 7000 civilian personnel. These reductions are required only to stay even with increasing operating costs and will provide little additional money for fleet support.

Conclusion

The Navy is gradually recognizing that its problem lies in better management of existing resources of manpower, money and material. Top management has been slow to consider these limitations which are faced by every business man. Future Navy budgets will not supply increasing amounts of money for maintaining our aging Fleet. It appears doubtful that money will be available to reduce the backlog in alterations required for modernization with material now on the shelf or in various stages of procurement. In the Space Age the Navy must take large leaps into the future and drop out the old whether they be ships, men or methods.

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